

New York City Audubon
Comments Re: FCC Docket 03-187
Notice of Proposed Rule Making to reduce migratory bird
collisions with communication towers

New York City Audubon is a 10,000 member organization that protects wild birds and habitat in the five boroughs, improving the quality of life for all New Yorkers. Since 1997 we have been protecting migratory birds in our city through Project Safe Flight. Within this initiative we launched the Lights Out New York program, and continue to contribute to bird collision research and collision prevention analysis.

NYC Audubon strongly supports FCC rule making to reduce the significant problem of avian mortality due to collisions with communication towers. As a federal agency, the FCC has a legal obligation to be in conformance with the Migratory Bird Treaty Act (MBTA) which prohibits the intentional taking of migratory birds without permits, and all unintentional taking of migratory birds. In other words, lack of intent to kill is not a defense against unintentional killing under the MBTA.

The scope of this problem is large and growing. In 1999 there were 40,000 lighted towers and tower farms in the United States, a number which was projected to double to 80,000 by 2010 by the Ornithological Council¹. That projection seems on target, as there are now estimated to be more than 60,000 lit towers², and USFWS projects increases of 6-8% per year.³ In 1998 there was a single-night kill of between 5-10,000 Lapland Larkspurs and other songbird species at three communication towers in western

¹Ornithological Council Issue Brief, "Deadly Spires in the Night: the impact of communication towers on migratory birds. BIRDNET, VOL.1, NO. 8 October 1999. <http://www.nmnh.si.edu/BIRDNET/OC/issues/OCBv1N8.html>.

² American Bird Conservancy, "Communication Towers". <http://www.abcbirds.org/policy/towerkill.htm>.

³ Manville, Albert M. II Ph.D., ABCs of Avoiding Bird Collisions, 2000. <http://www.fws.gov/migratorybirds/issues/towers/abcs.html>.

Kansas.⁴ In 1999, deaths of more than 1,000 birds on a single night were reported more than 12 times at towers over 500 feet⁵. It is now conservatively estimated that between 4 and 5 million birds are killed annually in the US in this way, although the real number may be ten times as high, i.e. 40-50 million, which is why mitigation activities are imperative to implement now even though additional research is required.⁶ We can't afford to wait.

The number of species affected by communications towers and other lighted structures is enormous. Of the 836 species that the US Fish and Wildlife Service has the responsibility to conserve and manage, 144 are "birds of conservation concern", 78 are endangered and 15 are threatened, (239 of 836 or 35%). The USFWS admits they have very little data on about 1/3 of the 836 species. Tower-related deaths have been documented for at least 350 species.⁷ Many of our migratory birds are in trouble.

To date, the cumulative effects of the threats to migratory birds from human activity are cause for alarm. Habitat loss and habitat degradation, reflective glass, predators, climate change and other threats are taking their toll on populations. For example, in 1995, the USFWS listed 124 species as "Birds of Conservation Concern", which rose to 144 species in 2001. The good news is that research from the Communication Tower Working Group has used the best science available to identify objective criteria and standards to mitigate their danger to migratory birds. As noted, more research is needed, but this will require the cooperation of tower owners and managers. This is another reason why FCC regulations are necessary.

Finally, why do we need to care about migratory birds? Birds are an integral part of our world, a fact that many policy makers are beginning to understand and respect. They provide critical ecological services, such as pollination for countless species of

⁴ IBID.

⁵ Issue Brief, BIRDNET (1999).

⁶ USFWS, Migratory Bird Mortality, Mortality Fact Sheet.
<http://www.fws.gov/birds/mortality-fact-sheet.pdf>, January 2002.

⁷ IBID

flora, and the consumption of enormous quantities of insects. Scientists have recently begun to quantify the dollar value associated with ecological services, including those provided by wild birds. Following are a few examples of the economic benefits that have been documented: A Rainforest Alliance study in Jamaica has discovered the economic benefit to coffee growers who use shade trees to attract birds that eat insect pests compared to those that do not ⁸; Birds are among many wild pollinators, along with butterflies, bats, bees and others, that provide an estimated \$4-6 billion dollars worth of “free” pollination of American crops every year⁹; Lastly, it has long been known that birds help crops and low-lying plants in temperate forests by devouring insects. However, researchers from the University of Illinois at Champagne-Urbana have only recently documented that worldwide, and especially in Neotropical forests, birds defend trees by consuming their herbivore pests. Specifically they found that “31 species of birds ate enough to drastically reduce damage to trees”.¹⁰

Birds also bestow on us the pure pleasure and wonder we experience when we watch them fly and hear their song. They inspire us with their awesome beauty and mystery, including the ability to navigate thousands of miles around our shared world. Their migrations constitute amazing and perilous journeys we only imperfectly understand.

We urge the FCC to move quickly to help mitigate the threat of communication towers to migratory birds by adopting the best practices identified by the Communication Tower Working Group. A summary of these voluntary guidelines follows:

**Service Interim Guidelines For Recommendations On Communications
Tower Siting,
Construction, Operation, and Decommissioning**

⁸ Krenke, Melissa , Rainforest Alliance, <http://www.eco-index.org/new/stories/2006/july.cfm>

⁹ Ecological Society of America, “Ecosystem Services”.
<http://www.esa.org/teaching/pdfDocs/ecosystems-services.pdf>. 2000.

¹⁰ Science Daily, U. of Illinois, “Researchers Discover Birds Protect Trees in Neotropics by Eating Insects”. <http://www.sciencedaily.com/releases/2003/03/0624090714.htm>. 2003.

1. Any company/applicant/licensee proposing to construct a new communications tower should be strongly encouraged to collocate the communications equipment on an existing communication tower or other structure (*e.g.*, billboard, water tower, or building mount). Depending on tower load factors, from 6 to 10 providers may collocate on an existing tower.
2. If collocation is not feasible and a new tower or towers are to be constructed, communications service providers should be strongly encouraged to construct towers no more than 199 feet above ground level (AGL), using construction techniques which do not require guy wires (*e.g.*, use a lattice structure, monopole, etc.). Such towers should be unlighted if Federal Aviation Administration regulations permit.
3. If constructing multiple towers, providers should consider the cumulative impacts of all of those towers to migratory birds and threatened and endangered species as well as the impacts of each individual tower.
4. If at all possible, new towers should be sited within existing "antenna farms" (clusters of towers). Towers should not be sited in or near wetlands, other known bird concentration areas (*e.g.*, state or Federal refuges, staging areas, rookeries), in known migratory or daily movement flyways, or in habitat of threatened or endangered species. Towers should not be sited in areas with a high incidence of fog, mist, and low ceilings.
5. If taller (>199 feet AGL) towers requiring lights for aviation safety must be constructed, the minimum amount of pilot warning and obstruction avoidance lighting required by the FAA should be used. Unless otherwise required by the FAA, only white (preferable) or red strobe lights should be used at night, and these should be the minimum number, minimum intensity, and minimum number of flashes per minute (longest duration between flashes) allowable by the FAA. The use of solid red or pulsating red warning lights at night should be avoided. Current research indicates that solid or pulsating (beacon) red lights attract night-migrating birds at a much higher rate than white strobe lights. Red strobe lights have not yet been studied.
6. Tower designs using guy wires for support which are proposed to be located in known raptor or waterbird concentration areas or daily movement routes, or in major diurnal migratory bird movement routes or stopover sites, should have daytime visual markers on the wires to prevent collisions by these diurnally moving species. (For guidance on markers, see *Avian Power Line Interaction Committee (APLIC). 1994. Mitigating Bird Collisions with Power Lines: The State of the Art in 1994. Edison Electric Institute, Washington, D.C., 78 pp*, and *Avian Power Line Interaction Committee (APLIC). 1996. Suggested Practices for Raptor Protection on Power Lines. Edison Electric*

Institute/Raptor Research Foundation, Washington, D.C., 128 pp. Copies can be obtained via the Internet at <http://www.eei.org/resources/pubcat/enviro/>, or by calling 1-800/334-5453).

7. Towers and appendant facilities should be sited, designed and constructed so as to avoid or minimize habitat loss within and adjacent to the tower "footprint". However, a larger tower footprint is preferable to the use of guy wires in construction. Road access and fencing should be minimized to reduce or prevent habitat fragmentation and disturbance, and to reduce above ground obstacles to birds in flight.

8. If significant numbers of breeding, feeding, or roosting birds are known to habitually use the proposed tower construction area, relocation to an alternate site should be recommended. If this is not an option, seasonal restrictions on construction may be advisable in order to avoid disturbance during periods of high bird activity.

9. In order to reduce the number of towers needed in the future, providers should be encouraged to design new towers structurally and electrically to accommodate the applicant/licensee's antennas and comparable antennas for at least two additional users (minimum of three users for each tower structure), unless this design would require the addition of lights or guy wires to an otherwise unlighted and/or unguyed tower.

10. Security lighting for on-ground facilities and equipment should be down-shielded to keep light within the boundaries of the site.

11. If a tower is constructed or proposed for construction, Service personnel or researchers from the Communication Tower Working Group should be allowed access to the site to evaluate bird use, conduct dead-bird searches, to place net catchments below the towers but above the ground, and to place radar, Global Positioning System, infrared, thermal imagery, and acoustical monitoring equipment as necessary to assess and verify bird movements and to gain information on the impacts of various tower sizes, configurations, and lighting systems.

12. Towers no longer in use or determined to be obsolete should be removed within 12 months of cessation of use.

In order to obtain information on the extent to which these guidelines are being implemented, and to identify any recurring problems with their implementation which may necessitate modifications, letters provided in response to requests for evaluation of proposed towers should contain the following request:

"In order to obtain information on the usefulness of these guidelines in preventing bird strikes, and to identify any recurring problems with their implementation which may necessitate modifications, please advise us of the final location and specifications of the proposed tower, and which of the measures recommended for the protection of migratory birds were implemented. If any of the recommended measures can not be implemented, please explain why they were not feasible."¹¹

¹¹ American Bird Conservancy, Communication Towers,
<http://www.abcbirds.org/policy/guidelines.htm>